TITLE 326 AIR POLLUTION CONTROL BOARD

Proposed Rule
LSA Document #07-352

DIGEST

Amends 326 IAC 1-2-18.5 concerning the definition of "cold cleaner degreaser". Amends 326 IAC 8-3-1 through 326 IAC 8-3-4 and 326 IAC 8-3-8 concerning volatile organic compounds (VOC) in solvent degreasing operations. Repeals 326 IAC 8-3-5 through 326 IAC 8-3-7. Effective 30 days after filing with the Publisher.

HISTORY

First Notice of Comment Period: June 27, 2007, Indiana Register (DIN: 20070627-IR-326070352FNA).

Continuation of First Notice of Comment Period: April 2, 2008, Indiana Register (DIN: 20080402-IR-326070352FCA).

Second Notice of Comment Period: January 13, 2010, Indiana Register (DIN: 20100113-IR-326070352SNA).

Notice of First Hearing: January 13, 2010, Indiana Register (DIN: 20100113-IR-326070352PHA).

Continuation of Second Notice of Comment Period: March 14, 2012, Indiana Register (DIN: 20120314-IR-326070352SCA).

Change in Notice of First Hearing: April 25, 2012, Indiana Register (DIN: 20120425-IR-326070352CHA).

Date of First Hearing: August 1, 2012.

PUBLIC COMMENTS UNDER IC 13-14-9-4.5

IC 13-14-9-4.5 states that a board may not adopt a rule under IC 13-14-9 that is substantively different from the draft rule published under IC 13-14-9-4 until the board has conducted a third comment period that is at least 21 days long. Because this proposed rule is not substantively different from the draft rule published on March 14, 2012, at DIN: 20120314-IR-326070352SCA, the Indiana Department of Environmental Management (IDEM) is not requesting additional comment on this proposed rule.

SUMMARY/RESPONSE TO COMMENTS FROM THE SECOND COMMENT PERIOD

IDEM requested public comment from January 13, 2010, through February 12, 2010, and March 14, 2012, through April 13, 2012, on IDEM's draft rule language. IDEM received comments from the following parties:

Bingham Greenebaum Doll on behalf of the CASE Coalition (BGD)
Printpack Inc. (Printpack)
Eli Lilly and Co. (Lilly)
Alcoa, Inc. Lafayette Operations (ALO)*
SABIC Innovative Plastics (SABIC)*

*Comments received during January 13, 2010 through February 12, 2010 comment period

Following is a summary of the comments received March 14, 2012, through April 13, 2012, and IDEM's responses thereto:

Comment: Amend 326 IAC 8-3-1(d)(2)(C) to include the phrase "organic solvent" instead of "cleaning solvent" to be consistent with the other two subsections of 326 IAC 8-3-1(d)(2). (BGD)

Response: IDEM agrees that the use of the word "cleaning" in 326 IAC 8-3-1(d)(2)(C) is not appropriate and has deleted the word. IDEM is not proposing to add "organic" because in another comment received on this rulemaking it was suggested that IDEM use "solvent" instead of "organic solvent" throughout the rule. The definition of "solvent" already limits materials to organic solvents.

Comment: Amend 326 IAC 8-3-1 to include a new subsection (e) to read as follows: "When a limit is expressed in metric units and the English units are provided, the regulated source has the option of using either metric or English units to demonstrate compliance with the rule." (BGD)

Response: IDEM agrees and will add the suggested new subsection. IDEM will consider in a future rulemaking adding this provision to the general provision section for Article 8 so that this would be clear for all VOC rules.

Comment: Clarify 326 IAC 8-3-1 so that solvent cleaning activities related to flexographic and rotogravure printing activities throughout the state are not subject to requirements of 326 IAC 8-3-1, but rather at a minimum enjoy the equivalent yet more flexible compliance options allowed for flexographic and rotogravure printing activities located in Lake and Porter County pursuant to 326 IAC 8-17. (Printpack)

Response: The cold cleaning degreasing regulations at 326 IAC 8-3 are not limited to any specific industry type. Currently, the cold cleaning work practice standards at 326 IAC 8-3-2 apply to any degreaser constructed after 1990 statewide. The solvent use requirements (i.e., solvents with a vapor pressure less than 1 mmHg) at 326 IAC 8-3-8 apply in four counties (Lake, Porter, Clark, and Floyd). This rulemaking is proposing to make the solvent use requirement for cold cleaners applicable statewide. There is a proposed exemption for solvents

containing less than 1% VOC by weight, except for degreasers located in Lake, Porter, Clark, and Floyd counties where the solvent use requirements are already applicable. Sources in Lake and Porter counties are already subject to the cold cleaning degreasing rules at 326 IAC 8-3 with no exemption for flexographic and rotogravure printing activities. The Control Techniques Guidelines (CTG) for industrial solvent cleaning at 326 IAC 8-17 exempts solvent cleaning subject to 326 IAC 8-3.

Comment: To be consistent with federal regulations at 40 CFR 63, Subpart T the definition for "cold cleaner degreaser" at 326 IAC 1-2-18.5 should read as follows: "Cold cleaner degreaser" means a tank containing organic solvent at a temperature below the boiling point of the solvent which is used to spray, brush, flush, or immerse an article for the purpose of cleaning or degreasing the article. Buckets, pails, and beakers with capacities of 7.6 liters (2 gallons) or less are not considered cold cleaner degreasers. Wipe cleaning activities, such as using a rag containing halogenated solvent or a spray cleaner, are not considered cold cleaner degreasers." (Lilly)

Response: IDEM believes that the definition of "cold cleaner degreaser" at 326 IAC 1-2-18.5 is adequate to address concerns that wipe cleaning activities are not included. The definition is limited to tanks containing solvent where the solvent is used to spray, brush, flush, or immerse an article for the purpose of cleaning or degreasing the article. In order to address the commenter's concern, IDEM is proposing to add the following sentence to end of the definition: "Wipe cleaning activities are not considered cold cleaner degreasers." IDEM is not proposing to amend the definition to exclude containers less than 2 gallons in size due to concerns that this could be considered backsliding.

Comment: The commenter supports the reorganization of the rule presented in the Continuation of Second Notice of Comment Period. (Lilly)

Response: IDEM appreciates the support.

Comment: The exemption from the work practice standards (sections 2 through 4) of degreasers already required to comply with 40 CFR 63, Subpart T should be extended to exempt batch cold cleaner degreasers, subject to subpart T, from section 8 solvent use requirements as well. (Lilly)

Response: IDEM did not extend the exemption from Subpart T to the solvent use requirements because an owner or operator could switch to a Subpart T solvent to avoid compliance with the vapor pressure limit in section 8. Subpart T solvents that are not also a volatile organic compounds (VOC) solvent would not be regulated under this rule.

Comment: The commenter supports the establishment of a minimum VOC content for 326 IAC 8-3 to encourage sources to explore ways to exempt themselves from the rule by using very low VOC solvents. (Lilly)

Response: IDEM appreciates the support.

Comment: Microbial degreasing systems should be exempt. Microbial degreasing systems could have VOC content (VOC definition at 40 CFR 51.100) higher than 1% due to the presence of microbes and enzymes, but essentially no traditional "organic solvent" content. (Lilly)

Response: IDEM does not think it is necessary to exempt microbial degreasing systems. The definition of VOC only includes compounds which participate in atmospheric photochemical reactions and it is also possible that the Method 24 VOC test method would not pick up microbes.

Comment: The compliance date of January 1, 2013, for the expansion of the solvent use requirements at 326 IAC 8-3-8 should be revised to January 1, 2015, or later, to provide sources time to come into compliance with the new requirement. (Lilly)

Response: IDEM agrees and will revise the compliance date to January 1, 2015.

Comment: IDEM should develop and implement a proactive educational and technology transfer program to reach out to smaller businesses. Some businesses may not purchase "degreasing solvent" but use plain solvents purchased as drum stock and may not realize they need to change. (Lilly)

Response: IDEM will work with its Compliance and Technical Assistance Program (CTAP) to provide outreach to affected sources.

Comment: The term "organic solvent" is not defined in Indiana's regulations, and should be replaced by the term "solvent" throughout the rule. (Lilly)

Response: IDEM agrees and has made the suggested change. The definition of "solvent" at 326 IAC 1-2-72 includes "organic materials" and other state rules, such as Illinois and Ohio, for cold cleaning degreasing use the term "solvent" also.

Comment: The vapor pressure limitations in 326 IAC 8-3-8 are impossible to meet unless the requirement is restated to properly reflect only the partial pressure of the VOC constituents in the degreasing solvents. Vapor pressure would be more correctly expressed as the "summed partial pressure of the VOC constituents in the solvent." Use of the term VOC would limit consideration to VOC materials rather than sweeping in non-VOC constituents such as acetone. (Lilly)

Response: As with VOC content limits throughout Article 8, the vapor pressure limitations apply to the VOC constituents in the solvent and not water or exempt VOC materials. To be clear, IDEM is proposing to express the vapor pressure limit as "VOC composite partial vapor pressure." This term is used in the recently adopted "Industrial Solvent Cleaning" rule at 326 IAC 8-17 for sources in Lake and Porter counties.

Comment: The material requirements in 326 IAC 8-3-8 that apply to sellers of solvents should be stated to

account for the recommended dilution and blending of the solvents in use. Many degreaser materials are now sold in concentrated form and are intended to be used blended. The materials as sold will therefore have a higher partial pressure of VOC constituents than they would have in actual use. The commenter suggests adding the phrase "when diluted at the manufacturer's recommended blend and dilution" to 326 IAC 8-3-8(b). (Lilly)

Response: This type of language has not traditionally been included in other state rules similar to Indiana for cold cleaning degreasing with vapor pressure limits. Indiana's new Consumer and Commercial Products Rule (CCP), that also applies to sellers includes a provision at 326 IAC 18-15-3(c) applicable to products that are diluted prior to use for determining compliance with the VOC content limit. For products for which the label, packaging, or accompanying literature specifically states that the product should be diluted with water or non-VOC solvent prior to use, the VOC limit applies to the product only after the minimum recommended dilution takes place. Similarly, for products diluted with VOC solvent prior to use, the limits apply to the product after the maximum recommended dilution takes place. Since VOC limits typically apply, "as applied", IDEM is proposing to add the dilution language as suggested.

Comment: The provision of 326 IAC 8-3-8(b)(1) allowing the sale of noncompliant degreaser solvents seems inappropriate. If the determination of the vapor pressure is made using the manufacturer's recommended dilution and blending, it is not clear why there would be a need to sell noncompliant materials, since they could not legally be used. (Lilly)

Response: The small quantity exemption for sales less than five gallons reduces the record keeping burden for small businesses.

Comment: With regard to the date of purchase for record requirements at 326 IAC 8-3-8(c), in a contract supplier situation, the contractor may deliver over several days to numerous units, and submit a single invoice with a total volume. IDEM should allow the use of the service period identified on the bill or invoice sufficient for this record. (Lilly)

Response: IDEM agrees and has amended the language at 326 IAC 8-3-8(c)(1)(B) and 326 IAC 8-3-8(c)(2)(B) as suggested.

Comment: The requirements regarding "volume of each unit of solvent sold" or "volume of each unit of solvent purchased" are not of value to either IDEM or the regulated community, and should not be included. Even if IDEM can demonstrate that requiring sellers and purchasers to keep records of "volume of each unit of solvent" has some value, the term "unit" is problematic and needs to be clarified or the "per unit" requirement eliminated. (Lilly)

Response: The volume of each unit sold indicates the size of the container sold. The requirements applicable to sellers at 326 IAC 8-3-8(b)(1) does not apply to an "amount" less than five gallons. This is similar to requirements for cold cleaning degreasers in other states, such as Illinois. Therefore, sellers are required to document the volume of each unit. To be consistent with requirements in other states, IDEM is proposing to delete the requirement to keep records for "volume of each unit of solvent purchased" as other states with similar requirements do not include this provision.

Comment: IDEM should not require sources to maintain compliance records of the "total volume of solvent" sold or purchased. This information is not helpful in estimating emissions from degreasers. In most cases, a degreaser is filled, and when the solvent is dirty, it is emptied and refilled. Very often the amount that is removed may be larger than the amount originally put into the unit, as substantial amounts of dirt or water may have been removed in the degreaser and ended up in the degreasing solvent. Mass balances across cold cleaner degreasers to determine actual solvent emissions can be difficult to use when trying to calculate solvent emissions. (Lilly)

Response: The "total volume of solvent" sold or purchased could be useful for enforcement purposes. It would be helpful to distinguish between someone that bought and used 15 gallons of noncompliant solvent versus someone who bought and used 5,000 gallons. This record keeping requirement is consistent with records required by other states.

Following is a summary of the comments received January 13, 2010, through February 12, 2010, as published in the Continuation of Second Notice of Comment Period at DIN: 20120314-IR-326070352SCA, and IDEM's responses thereto:

Comment: Commenter supports the formation of a work group of interested parties and stakeholders to assist in development of an appropriate rule for organic solvent degreasers. (ALO)

Response: IDEM has revised the draft language to provide clarity and address comments that may significantly change the impact the draft rule language would have on a source. If there is significant interest in the formation of a work group based on this revised language, IDEM will consider forming a work group.

Comment: IDEM stated in the Second Notice of rulemaking that no additional capital cost for equipment are anticipated. This is inaccurate. Alcoa Lafayette Operations believes that the costs of complying with this rule on a statewide basis will exceed $500,000 and requests that IDEM conduct a thorough fiscal impact analysis prior to implementation of the rule. (ALO)

Response: IDEM has revised the draft language to provide clarity and address comments that may significantly change the impact the draft rule language would have on a source. IDEM requests that sources

evaluate potential fiscal impacts and provide comments to assist IDEM in determining the likely costs associated with the revised draft rule.

Comment: The existing 8-hour standard for ozone is currently 0.85 ppm. Currently, all counties in Indiana are achieving this standard. U.S. EPA is currently reconsidering lowering the standard to 0.75 ppm. It is inappropriate to arbitrarily impose restrictive regulations in anticipation of future regulations without first conducting a scientific analysis of the anticipated benefits and costs of regulatory implementation. IDEM has not sufficiently demonstrated that requiring the existing solvent degreasers in existence prior to January 1, 1980 will significantly improve air quality. (ALO)

Response: Since these comments were originally submitted, U.S. EPA has lowered the ozone standard to 0.75 ppm. Though designations are not finalized yet, it is possible that Indiana will have one or more areas designated nonattainment for the new standard. Because ozone is a regional pollutant and can impact counties beyond the area in which it forms, it is reasonable to address it on a regional basis. For this reason, IDEM is proposing to expand the cold cleaner degreasing requirements statewide. *Response update:* After this response was published on March 14, 2012, in the *Indiana Register*, Lake and Porter counties, and Lawrenceburg Township in Dearborn County were designated nonattainment for the new standard.

Comment: In numerous places in the rule, a numeric regulatory value is set forth in both metric and English units. The format used is one set of units is set forth, with the other set appearing in parentheses immediately following. For example, in proposed 326 IAC 8-3-0.5, a flash point temperature is described as "... greater than ninety-three (93) degrees Celsius (two hundred (200) degrees Fahrenheit)...." In all cases in the rule except one, however, the two values provided are not equivalent. One is left wondering which value is to be used in determining compliance, or whether either may be used. This obviously creates an ambiguity. To correct this issue, SABIC-IP has proposed to insert the word "approximately" immediately before the value set forth inside the parentheses. This way, the first-named value becomes the sole regulatory value, and the value in parentheses becomes an unenforceable approximation. (SABIC)

Comment: The proposed rule uses pairs of values, one in metric units and the other in English units. Even making the second values approximately equal to the first rather than hold them out as being equivalent, four of the "second" values in seven locations in the proposed rule are incorrect:

(a) In 326 IAC 8-3-0.5, 93 C equals 199.4 F, which rounds to 199 F.

(b) In 326 IAC 8-3-1(a)(3)(C) and 326 IAC 8-3-7(a)(2), 2 square meters equals approximately 21.53 square feet, which rounds to 21.5 square feet, not 21.6.

(c) In 326 IAC 8-3-6(a)(3)(B)(iv) and 326 IAC 8-3-7(a)(2)(E)(ii), 15 cubic meters per minute per square meter equals approximately 49.2 cubic feet per minute per square foot, which rounds to 49 cubic feet per minute per square foot, not 50.

(d) In 326 IAC 8-3-6(b)(11)(B) and 326 IAC 8-3-7(b)(6)(A), 20 cubic meters per minute per square meter equals approximately 65.6 cubic feet per minute per square foot, which rounds to 66 cubic feet per minute per square foot, not 65.

(SABIC)

Response: The difference in the values between the metric and English units noted by SABIC is a result of rounding. Specifically, it appears that SABIC used the most precise conversion factors possible. However, the English units in the rule language represent the metric values adjusted for the appropriate amount of significant figures. When approximate numbers are multiplied or divided, the result is expressed as a number having the same number of significant digits as the expression in the problem having the least number of significant digits. In other words, multiplying a number having four significant digits by a number having two significant digits, the correct answer will be expressed to two significant digits.

SABIC observes that in the proposed 326 IAC 8-3-0.5, a temperature is described as "...greater than ninety-three (93) degrees Celsius (two hundred (200) degrees Fahrenheit)..." However, $93^{o}C$ equals $199.4^{o}F$, which rounds to $199^{o}F$, not 200. SABIC's conversion would appear to be correct. However, using accepted scientific convention and significant figures, the conversion is completed as follows: $T_F = (1.8 \times T_C) + 32$. In this example, $(1.8 \times 93) + 32 = 199.4^{o}F$. The answer $199.4\ ^{o}F$ contains 4 significant figures, but the least number of significant figures in this problem is two (2). Therefore, the correct answer must contain only 2 significant figures. The conversion (199.4) must be rounded to two (2) significant digits. To maintain two (2) significant digits, the digits '4' in the tenths place and the digit '9' in the ones place must be dropped. Dropping the '9' requires increasing the value by one (1). This results in the Fahrenheit value becoming 200 which is the value that is correctly stated in the rule language.

IDEM declines to place the word "approximately" immediately before the value in the parentheses. The English values provided in the parentheses throughout the rule are the values that will be used for compliance determinations, based on IDEM's conversions using the appropriate number of significant figures. IDEM has checked and confirmed that all the conversions stated in the rule represent appropriate values. IDEM presents both numbers to avoid possible confusion or errors resulting from incorrect conversions. Additionally, these methods are consistent throughout IDEM's rules. Regulated sources have the option of using either the metric or English units when complying with the rule. *Response update:* After this response was published on March 14,

2012, in the *Indiana Register*, IDEM agreed for preliminary adoption to amend the rule language to clarify that either metric units or English units can be used to demonstrate compliance.

Comment: The proposed rule is inconsistent in how it refers to a cold cleaner degreaser. In some locations, the phrase is used. In other locations, the phrase cold "cleaning" degreaser is used. The regulatory term is "cold cleaner degreaser" (see 326 IAC 1-2-18.5). That term should be used throughout the proposed rule. (SABIC)

Response: IDEM concurs "cleaning" should be "cleaner" in reference to "cold cleaner degreasers" and has made the changes in the draft rule.

Comment: The proposed record keeping requirement in 326 IAC 8-3-8(d)(1) mandates that the records "be retained on-site" for a required period. However, given the prevalence of electronic record keeping and storage of such data on remote servers, SABIC suggests that this provision be revised to read as follows: "... shall be (1) retained on-site **or accessible electronically from the site** for the most recent...." (SABIC)

Response: IDEM concurs that the addition of this language will provide clarity to sources and has made the suggested change.

Comment: Several grammatical changes should be made:

(a) In 326 IAC 8-3-1(a)(2), 326 IAC 8-3-1(a)(4), 326 IAC 8-3-1(a)(5) and 326 IAC 8-3-1(b)(2), the word "state" should be changed to "State".

(b) In 326 IAC 8-3-1(a)(3)(B) and 326 IAC 8-3-1(a)(3)(C), 326 IAC 8-3-6(a)(3), 326 IAC 8-3-6(b)(11), 326 IAC 8-3-7(a)(2) and 326 IAC 8-3-7(b)(6), "air to solvent" should be changed to "air-to-solvent".

(c) In 326 IAC 8-3-8(d)(1), "three (3) year" should be changed to "three (3)-year".

(d) In 326 IAC 8-3-8(d)(2), "two (2) year" should be changed to "two (2)-year".

(SABIC)

Response: The format of the word "state" and the phrases "three (3) year" and "two (2) year" are specified by the Legislative Services Agency for use in regulatory language and cannot be changed. When drafting rule language, IDEM must comply with the requirements for administrative rules set forth in the *Administrative Rules Drafting Manual*, prepared by the Legislative Services Agency. These suggested changes do not meet LSA standards for rule language. For review of administrative rule standards please refer to the manual available on the website of the Indiana General Assembly at: http://www.in.gov/legislative/pdf/IACDrftMan.PDF

IDEM concurs that "air to solvent" should be changed to "air-to-solvent", and has made the suggested change.

SUMMARY/RESPONSE TO COMMENTS RECEIVED AT THE FIRST PUBLIC HEARING

On August 1, 2012, the Air Pollution Control Board (board) conducted the first public hearing/board meeting concerning the development of amendments to 326 IAC 8-3. No comments were made at the first hearing.

326 IAC 1-2-18.5; 326 IAC 8-3-1; 326 IAC 8-3-2; 326 IAC 8-3-3; 326 IAC 8-3-4; 326 IAC 8-3-5; 326 IAC 8-3-6; 326 IAC 8-3-7; 326 IAC 8-3-8

SECTION 1. 326 IAC 1-2-18.5 IS AMENDED TO READ AS FOLLOWS:

326 IAC 1-2-18.5 "Cold cleaner degreaser" defined

Authority: IC 13-1-1-4; IC 13-7-7
Affected: IC 13-1-1-2; IC 13-7-1

Sec. 18.5. "Cold cleaner degreaser" means a tank containing organic solvent at a temperature below the boiling point of the solvent ~~which~~ **that** is used to spray, brush, flush, or immerse an article for the purpose of cleaning or degreasing the article. **Wipe cleaning activities are not considered cold cleaner degreasers.**

(Air Pollution Control Board; 326 IAC 1-2-18.5; filed Apr 18, 1990, 4:55 p.m.: 13 IR 1676)

SECTION 2. 326 IAC 8-3-1 IS AMENDED TO READ AS FOLLOWS:

326 IAC 8-3-1 Applicability and exemptions

Authority: IC 13-14-8; IC 13-17
Affected: IC 13-17-3

Sec. 1. (a) ~~Sections 2 through 4 of~~ **This rule applies to the following:**

(1) Persons owning or operating degreasers using solvents that contain one (1) or more volatile

organic compounds (VOC).

(2) Any person who sells, offers for sale, uses, or manufactures solvent that contains one (1) or more VOC for use in cold cleaner degreasers.

(b) For purposes of this section, "electronic components" means all components of an electronic assembly, including, but not limited to, the following:

(1) Circuit board assemblies.

(2) Printed wire assemblies.

(3) Printed circuit boards.

(4) Soldered joints.

(5) Ground wires.

(6) Bus bars.

(7) Any other associated electronic component manufacturing equipment.

(c) Unless exempted in subsection (d), this rule ~~apply to the following:~~ **applies to persons owning or operating degreasers as follows:**

(1) ~~Existing facilities as of~~ **Sections 2(a), 3(a), and 4(a) of this rule apply to the following degreasers:**

(A) Degreasers constructed on or before January 1, 1980, ~~performing organic solvent degreasing operations~~ **that are** located:

(i) in Clark, Elkhart, Floyd, Lake, Marion, Porter, ~~and~~ **or** St. Joseph ~~counties;~~ **County;** and ~~which are located~~

(ii) at sources ~~which~~ **that** have potential emissions of ninety and seven-tenths (90.7) megagrams (one hundred (100) tons) or greater per year of VOC.

~~(2) New facilities~~ **(B) Degreasers constructed** after January 1, 1980, ~~performing organic solvent degreasing operations~~ located anywhere in the state.

~~(b)~~ **(2)** Sections ~~5~~ **2** through ~~7~~ **4** of this rule apply to the following **degreasers:**

~~(1) The following facilities performing organic solvent degreasing operations~~

(A) Cold cleaner degreasers without remote solvent reservoirs that:

(i) are located in Clark, Elkhart, Floyd, Lake, Marion, Porter, ~~and~~ **or** St. Joseph ~~counties; existing as of July 1, 1990:~~ **County; or**

(ii) were constructed after July 1, 1990, and located anywhere in the state.

~~(A) Cold cleaner degreasers without remote solvent reservoirs.~~

(B) Open top vapor degreasers with an air-to-solvent interface of one (1) square meter (ten and eight-tenths (10.8) square feet) or greater **that:**

(i) are located in Clark, Elkhart, Floyd, Lake, Marion, Porter, or St. Joseph County; or

(ii) were constructed after July 1, 1990, and located anywhere in the state.

(C) Conveyorized degreasers with an air-to-solvent interface of two (2) square meters (twenty-one and six-tenths (21.6) square feet) or greater **that:**

(i) are located in Clark, Elkhart, Floyd, Lake, Marion, Porter, or St. Joseph County; or

(ii) were constructed after July 1, 1990, and located anywhere in the state.

~~These facilities shall attain compliance with this rule no later than July 1, 1991.~~

~~(2) Any new facility, construction of which commences after July 1, 1990, of the types described in subdivision (1) located in any county.~~

~~(c)~~ **(3)** Section 8 of this rule applies to any person who sells, offers for sale, uses, or manufactures solvent for use in cold ~~cleaning~~ **cleaner** degreasers ~~in the following counties:~~ **as follows:**

(A) Before January 1, 2015, in the following counties:

~~(1)~~ **(i)** Clark.

~~(2)~~ **(ii)** Floyd.

~~(3)~~ **(iii)** Lake.

~~(4)~~ **(iv)** Porter.

(B) On and after January 1, 2015, anywhere in the state.

(d) The following degreasers and solvent material uses are exempted from this rule:

(1) Sections 2 through 4 of this rule do not apply to the following solvent degreasing operations:

(A) Degreasers that are required to comply with and are operated in compliance with 326 IAC 20-6-1 that incorporates by reference 40 CFR 63, Subpart T*, National Emissions Standards for Hazardous Air Pollutants for Halogenated Solvent Cleaning.

(B) Degreasers that use solvents that contain less than one percent (1%) of VOC by weight.

(2) Section 8 of this rule does not apply to the following:

(A) Solvents intended to be used in degreasers to clean electronic components.

(B) Solvents used in degreasers that are required to comply with and are operated in compliance with the requirements of 326 IAC 20-15-1, which incorporates by reference 40 CFR 63, Subpart GG*, National Emission Standards for Aerospace Manufacturing and Rework Facilities, and that are not located in Clark, Floyd, Lake, or Porter County.

(C) Solvents containing less than one percent (1%) VOC by weight used in degreasers and that are not located in Clark, Floyd, Lake, or Porter County.

(e) When a limit is expressed in metric units and the English units are provided, the owner or operator has the option of using either metric or English units to demonstrate compliance with the rule.

***These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.**

(Air Pollution Control Board; 326 IAC 8-3-1; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2537; filed Apr 18, 1990, 4:55 p.m.: 13 IR 1679; filed Apr 27, 1999, 9:06 a.m.: 22 IR 2854; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)

SECTION 3. 326 IAC 8-3-2 IS AMENDED TO READ AS FOLLOWS:

326 IAC 8-3-2 Cold cleaner degreaser control equipment and operating requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-3-12
Affected: IC 13-17-3

Sec. 2. **(a)** The owner or operator of a cold ~~cleaning facility~~ **cleaner degreaser** shall **ensure the following control equipment and operating requirements are met:**

(1) Equip the ~~cleaner~~ **degreaser** with a cover.
(2) Equip the ~~cleaner~~ **degreaser** with a ~~facility~~ **device** for draining cleaned parts.
(3) Close the degreaser cover whenever parts are not being handled in the ~~cleaner;~~ **degreaser.**
(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.
(5) Provide a permanent, conspicuous label ~~summarizing~~ **that lists** the operating requirements **in subdivisions (3), (4), (6), and (7).**
(6) Store waste solvent only in ~~covered~~ **closed** containers. ~~and not dispose~~
(7) Prohibit the disposal or transfer of waste solvent ~~or transfer it to another party,~~ in such a manner that **could allow** greater than twenty percent (20%) of the waste solvent (by weight) ~~can~~ **to** evaporate into the atmosphere.

(b) The owner or operator of a cold cleaner degreaser subject to this subsection shall ensure the following additional control equipment and operating requirements are met:

(1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):
(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
(B) A water cover when solvent used is insoluble in, and heavier than, water.
(C) A refrigerated chiller.
(D) Carbon adsorption.
(E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.
(2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.
(3) If used, solvent spray:
(A) must be a solid, fluid stream; and
(B) shall be applied at a pressure that does not cause excessive splashing.

(Air Pollution Control Board; 326 IAC 8-3-2; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2537; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)

SECTION 4. 326 IAC 8-3-3 IS AMENDED TO READ AS FOLLOWS:

326 IAC 8-3-3 Open top vapor degreaser operation

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-3-12
Affected: IC 13-17-3

Sec. 3. **(a)** The owner or operator of an open top vapor degreaser shall **ensure the following control equipment and operating requirements are met:**

(1) Equip the vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone.

(2) Keep the cover closed at all times except when processing workloads through the degreaser.

(3) Minimize solvent carryout by:

(A) racking parts to allow complete drainage;

(B) moving parts in and out of the degreaser at less than **three and three-tenths** (3.3) meters per minute (eleven (11) feet per minute);

(C) degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;

(D) tipping out any pools of solvent on the cleaned parts before removal; and

(E) allowing parts to dry within the degreaser for at least fifteen (15) seconds or until visually dry.

(4) ~~not degrease~~ **Prohibit the entrance into the degreaser of** porous or absorbent materials, such as cloth, leather, wood, or rope.

(5) ~~not occupy~~ **Prohibit occupation of** more than ~~half~~ **one-half (1/2)** of the degreaser's open top area with the workload.

(6) ~~not load~~ **Prohibit the loading of** the degreaser ~~such that~~ **in a manner that causes** the vapor level ~~drops~~ **to drop** more than fifty percent (50%) of the vapor depth when the workload is removed.

(7) ~~never spray~~ **Prohibit solvent spraying** above the vapor level.

(8) Repair solvent leaks immediately, or shut down the degreaser **if leaks cannot be repaired immediately.**

(9) Store waste solvent only in ~~covered~~ **closed** containers. ~~and not dispose~~

(10) Prohibit the disposal or transfer of waste solvent ~~or transfer it to another party, such~~ **in a manner** that **could allow** greater than twenty percent (20%) of the waste solvent (by weight) ~~can~~ **to** evaporate into the atmosphere.

~~(10) not~~ **(11) Prohibit the** use **of** workplace fans near the degreaser opening.

~~(11) not allow~~ **(12) Prohibit** visually detectable water in the solvent exiting the water separator. ~~and~~

~~(12)~~ **(13)** Provide **the degreaser with** a permanent, conspicuous label ~~summarizing~~ **that lists** the operating requirements **in subdivisions (2) through (12).**

(b) The owner or operator of an open top vapor degreaser subject to this subsection shall ensure the following additional control equipment and operating requirements are met:

(1) Equip the degreaser with the following switches:

(A) A condenser flow switch and thermostat that shuts off sump heat if condenser coolant stops circulating or becomes too warm.

(B) A spray safety switch that shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).

(2) Equip the degreaser with one (1) of the following control devices:

(A) A freeboard ratio of seventy-five hundredths (0.75) or greater and a powered cover if the degreaser opening is greater than one (1) square meter (ten and eight-tenths (10.8) square feet).

(B) A refrigerated chiller.

(C) An enclosed design in which the cover opens only when the article is actually entering or exiting the degreaser.

(D) A carbon adsorption system with ventilation that, with the cover open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air-to-vapor interface area and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.

(E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(3) Prohibit the loading of the degreaser to the point where the vapor level would drop more than ten (10) centimeters (four (4) inches) when the workload is removed.

(4) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per

square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser open area unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.

(5) Ensure that the label required under subsection (a)(13) includes the additional operating requirements listed in subdivisions (3) and (4).

(Air Pollution Control Board; 326 IAC 8-3-3; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2537; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)

SECTION 5. 326 IAC 8-3-4 IS AMENDED TO READ AS FOLLOWS:

326 IAC 8-3-4 Conveyorized degreaser control equipment and operating requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-3-12
Affected: IC 13-17-3

Sec. 4. **(a)** The owner or operator of a conveyorized degreaser shall **ensure the following control equipment and operating requirements have been met:**

(1) Minimize carryout emissions by:

(A) racking parts for ~~best~~ **optimal** drainage; **and**

(B) maintaining the vertical conveyor speed at less than **three and three-tenths** (3.3) meters per minute (eleven (11) feet per minute).

(2) Store waste solvent only in ~~covered~~ **closed** containers. ~~and not dispose~~

(3) Prohibit the disposal or transfer of waste solvent ~~or transfer it to another party,~~ in ~~such~~ a manner that **could allow** greater than twenty percent (20%) of the waste solvent (by weight) ~~can~~ **to** evaporate into the atmosphere.

~~(3)~~ **(4)** Repair solvent leaks immediately, or shut down the degreaser **if leaks cannot be repaired immediately.**

~~(4) not~~ **(5) Prohibit the** use **of** workplace fans near the degreaser opening.

~~(5) not allow~~ **(6) Prohibit visually detectable** water in **the** solvent **from** exiting the water separator. ~~and~~ ~~(6) provide~~ **(7) Equip the degreaser with** a permanent, conspicuous label ~~summarizing~~ **that lists** the operating requirements **in subdivisions (1) through (6).**

(b) The owner or operator of a conveyorized degreaser subject to this subsection shall ensure the following control equipment and operating requirements are met:

(1) Equip the degreaser's entrances and exits with downtime covers that are closed when the degreaser is not operating.

(2) Equip the degreaser with the following switches:

(A) A condenser flow switch and thermostat that shuts off sump heat if condenser coolant stops circulating or becomes too warm.

(B) A spray safety switch that shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).

(C) A vapor level control thermostat that shuts off sump heat when vapor level rises more than ten (10) centimeters (four (4) inches).

(3) Equip the degreaser with entrances and exits that silhouette workloads in such a manner that the average clearance between the articles and the degreaser opening is either less than ten (10) centimeters (four (4) inches) or less than ten percent (10%) of the width of the opening.

(4) Equip the degreaser with a drying tunnel, rotating or tumbling basket, or other equipment that prevents cleaned articles from carrying out solvent liquid or vapor.

(5) Equip the degreaser with one (1) of the following control devices:

(A) A refrigerated chiller.

(B) A carbon adsorption system with ventilation that, with the downtime covers open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air-to-solvent interface area, and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.

(C) An alternative system of demonstrated equivalent or better control as those outlined in clause (A) or (B) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(6) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser opening unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.

(7) Cover entrances and exits at all times except when processing workloads through the degreaser.

(8) Ensure that the label required under subsection (a)(7) includes the additional operating requirements listed in subdivisions (6) and (7).

(Air Pollution Control Board; 326 IAC 8-3-4; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2537; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)

SECTION 6. 326 IAC 8-3-8 IS AMENDED TO READ AS FOLLOWS:

326 IAC 8-3-8 Material requirements for cold cleaner degreasers

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-3-12
Affected: IC 13-17-3

Sec. 8. (a) **Material requirements specified in** this section ~~applies to the users, providers, and manufacturers of solvents~~ for use in cold ~~cleaning~~ **cleaner** degreasers **apply as follows:**

(1) Before January 1, 2015, in Clark, Floyd, Lake, and Porter counties. ~~except for solvents intended to be used to clean electronic components.~~

(2) On and after January 1, 2015, anywhere in the state.

~~(b) As used in this section, "electronic components" means all components of an electronic assembly, including, but not limited to, the following:~~

~~(1) Circuit board assemblies.~~
~~(2) Printed wire assemblies.~~
~~(3) Printed circuit boards.~~
~~(4) Soldered joints.~~
~~(5) Ground wires.~~
~~(6) Bus bars.~~
~~(7) Any other associated electronic component manufacturing equipment.~~

~~(c)~~ **(b)** Material requirements are ~~phased in~~ as follows:

~~(1) On and after November 1, 1999, no person shall do the following:~~

~~(A) Cause or allow the sale of solvents for use in cold cleaning degreasing operations with a vapor pressure that exceeds two (2) millimeters of mercury (thirty-eight thousandths (0.038) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit) in an amount greater than five (5) gallons during any seven (7) consecutive days to an individual or business.~~

~~(B) Operate a cold cleaning degreaser with a solvent vapor pressure that exceeds two (2) millimeters of mercury (thirty-eight thousandths (0.038) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).~~

~~(2) On and after May 1, 2001, no person shall do the following:~~

~~(A)~~ **(1) No person shall** cause or allow the sale of solvents for use in cold ~~cleaning~~ **cleaner** degreasing operations with a **VOC composite partial** vapor pressure, **when diluted at the manufacturer's recommended blend and dilution,** that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit) in an amount greater than five (5) gallons during any seven (7) consecutive days to an individual or business.

~~(B)~~ **(2) No person shall** operate a cold ~~cleaning~~ **cleaner** degreaser with ~~a solvent~~ **a solvent that has a VOC composite partial** vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

~~(d) On and after November 1, 1999, the following~~ **(c)** Record keeping requirements ~~shall be followed:~~ **are as follows:**

(1) All persons subject to the requirements of subsection ~~(c)(1)(A) and (c)(2)(A)~~ **(b)(1)** shall maintain all of the following records for each sale:

(A) The name and address of the solvent purchaser.

(B) The date of sale **(or invoice/bill date of contract servicer indicating service date).**
(C) The type of solvent **sold.**
(D) The volume of each unit of solvent sold.
(E) The total volume of the solvent **sold.**
(F) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(2) All persons subject to the requirements of subsection ~~(c)(1)(B) and (c)(2)(B)~~ **(b)(2)** shall maintain each of the following records for each purchase:
(A) The name and address of the solvent supplier.
(B) The date of purchase **(or invoice/bill date of contract servicer indicating service date).**
(C) The type of solvent **purchased.**
~~(D) The volume of each unit of solvent.~~
~~(E)~~ **(D)** The total volume of the solvent **purchased.**
~~(F)~~ **(E)** The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

~~(c)~~ **(d)** All records required by subsection ~~(d)~~ **(c)** shall be:
(1) retained on-site **or accessible electronically from the site** for the most recent three (3) year period; and ~~shall be~~
(2) reasonably accessible for an additional two (2) year period.

(Air Pollution Control Board; 326 IAC 8-3-8; filed Apr 27, 1999, 9:06 a.m.: 22 IR 2854; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)

SECTION 7. THE FOLLOWING ARE REPEALED: 326 IAC 8-3-5; 326 IAC 8-3-6; 326 IAC 8-3-7.

Notice of Public Hearing

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